

CLAIMS

What is claimed is:

1. A golf ball comprising:
 - a center having a compression of less than about 75; and
 - at least one cover layer surrounding the center, the cover layer formed of an ionomer component and a metallocene polymer component, and the cover layer having a Shore D hardness on the ball of less than about 58.
2. The golf ball of claim 1, wherein the center has a compression of between about 63 and about 73.
3. The golf ball of claim 1, wherein the cover layer has a Shore D hardness on the ball of less than about 55.
4. The golf ball of claim 2, wherein the cover layer has a Shore D hardness on the ball of between about 50 and about 52.
5. The golf ball of claim 1, wherein the cover layer includes about 50% to about 70% of the ionomer component and about 50% to about 30% of the metallocene polymer component.
6. The golf ball of claim 1, wherein the cover layer includes about 60% of the ionomer component and about 40% of the metallocene polymer component.
7. The golf ball of claim 1, wherein the ionomer component is a single ionomer.
8. The golf ball of claim 1, wherein the ionomer component includes the ionomer selected from the group including: a sodium ionomer, a magnesium ionomer, a zinc ionomer, and a lithium ionomer.

9. The golf ball of claim 8, wherein the ionomer component includes at least two different ionomers.
10. The golf ball of claim 8, wherein the ionomer component includes at least three different ionomers.
11. The golf ball of claim 1, wherein the center has a diameter of greater than about 1.50 inches.
12. The golf ball of claim 1, wherein the center has a diameter between about 1.55 inches and 1.60 inches.
13. The golf ball of claim 1, wherein the center includes less than about 30 pph zinc diacrylate and omits organic sulfur.
14. The golf ball of claim 1, wherein the center includes greater than about 30 pph zinc diacrylate and includes organic sulfur and the salts thereof.
15. A golf ball comprising:
 - a center having a compression of about 63; and
 - at least one cover layer surrounding the center, the cover layer formed of at least one ionomer and at least one metallocene polymer, and the cover layer having a Shore D hardness on the ball less than about 58.
16. The golf ball of claim 15, wherein the compression of the golf ball is greater than about 70.
17. The golf ball of claim 15, wherein the compression of the golf ball is between about 74 and about 80.

18. The golf ball of claim 15, wherein the center includes polybutadiene, zinc diacrylate, a free radical initiator, zinc oxide, and a filler.
19. The golf ball of claim 18, wherein the polybutadiene has a Mooney viscosity between about 40 and about 60.
20. The golf ball of claim 18, wherein the polybutadiene is a blend of a first and second polybutadiene, the first polybutadiene having a Mooney viscosity between about 30 and about 50 and the second polybutadiene having a Mooney viscosity between 50 and about 70.
21. The golf ball of claim 18, wherein the filler is selected from the group consisting of: metal powder, metal alloy powder, metal oxide, metal stearates, particulate carbonaceous materials, tungsten, barium sulfate, iron, manganese, magnesium, copper, and tungsten trioxide.
22. A two-piece golf ball comprising:
 - a center having a compression of less than about 75; and
 - a single cover layer surrounding the center, the cover layer formed of a lithium ionomer and a metallocene polymer, and the cover layer having a Shore D hardness on the ball of less than about 58.